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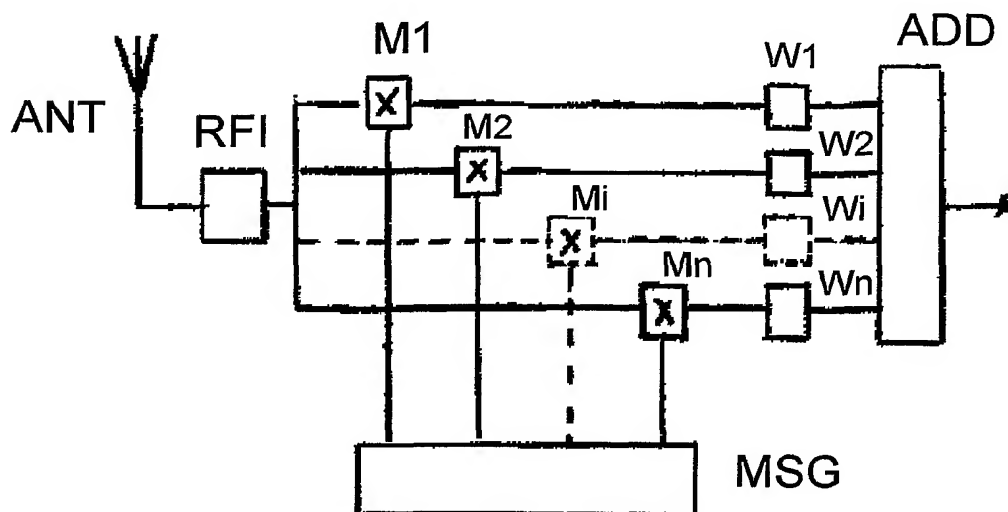
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[Continued on next page]

(54) Title: MULTIPLIER DEVICE



(57) Abstract: Multiplier device comprising first to  $n^{\text{th}}$  multipliers  $M_1$  to  $M_n$  for multiplying a carrier modulated information signal with first to  $n^{\text{th}}$  mutually phase shifted and identical, substantially square wave mixing signals  $MS_1$  to  $MS_n$  with 50% duty cycle. In order to eliminate fifth or higher order interferences from the output of said multiplier device according to the invention,  $n$  is greater than 2, outputs of said multipliers  $M_1$  to  $M_n$  are respectively coupled through weighting circuits  $W_1$  to  $W_n$  with respective fixed weighting factors  $WF_1$  to  $WF_n$  to an adder circuit, said mixing signals  $MS_1$  to  $MS_n$  having respective phase angles  $\phi_i$  corresponding to  $\phi_i = i * \Delta\phi$ , said weighting factors  $WF_i$  corresponding to the sine value of said respective phase angles  $\phi_i = i * \Delta\phi$  with  $\Delta\phi$  being the mutual phase difference between each two phase consecutive mixing signals corresponding to  $\pi/(n+1)$  and  $i$  varying from 1 to  $n$ .

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